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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/848,756	05/19/2004	Kenichi Nishiuchi	10873.0647USC1	4650

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Hamre, Schumann, Mueller & Larson P.C.
P.O. Box 2902-0902
Minneapolis, MN 55402

EXAMINER	
PATEL, GAUTAM	
ART UNIT	PAPER NUMBER
2627	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/848,756	NISHIUCHI ET AL.	
	Examiner	Art Unit	
	Gautam R. Patel	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 December 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,6,12 and 24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2,4,6,12 and 24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

1. This is in response to amendment filed on 12/14/06.

Claim Rejections - 35 U.S.C. § 103

2. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2, 4-6 12 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi US patent 5,764,621 (hereafter Choi), in view of Tanaka JPO Publication 10-112066 (hereafter Tanaka).

As to claim 1, Choi discloses the invention as claimed [see Fig. 3.], including plurality of information layers, a separating layer and sector structure with addresses, comprising:

A plurality of information layers [fig. 3, layers 310, 320, 330 & 340] from which information signals can be reproduced by one-sided irradiation [fig. 3, side showing two arrows pointing down] of light beams [beams λ1 & λ2] [fig. 3],

wherein at least the information layers except for the most distant information layer [fig. 3, layer 340] from an incident side [fig. 3, direction of the two arrows] of the light beams are semi-transmissive to the light beams,

a separating layer [fig. 3, layer 312] that is transparent to a wavelength of the light beams is formed between the information layers [col. 7, lines 17-47],

each information layer has a sector structure including a sector address and a data area that are divided in a circumferential direction [inherently present in all disks when you have read and write on the layers] [col. 7, line 14 to col. 8, line 52].

Choi discloses all of the above elements, including several layers of information storage, a separating layer that is transparent to a wavelength. Choi does not specifically disclose that each information layer has same number of sector addresses in circumferential direction, and the concept of position of these addresses coincides in both the circumferential and radial direction.

However, use of the coincident address position between layers is well known in the art [e.g., see US patent 5,428,597 by Satoh, especially figure 3 addresses IDa and IDb are coincidental]. And more importantly, Tanaka clearly discloses:

each information layer has a sector structure including a sector address and a data area that are divided in a circumferential direction, and

position of the sector addresses of the respective information layers coincide in both the circumferential direction and radial direction [fig. 1, & paragraphs 5-17].

Both Choi and Tanaka are interested in improving the multi-layered disk storage in an optical disk device with minimum management area and plural wavelength recording .

One of ordinary skill in the art at the time of invention would have realized that the system of Choi may be susceptible to crosstalk [leakage] and it would be advantageous to prevent cross talk between the layers and neighboring tracks.

Therefore, it would have been obvious to have used an idea of coincident structure of addresses and beginning of the data area in the system of Choi as taught by Tanaka because one would be motivated to provide higher density recording on plural disk and reduce the crosstalk between layers and between tracks at the same time an thus improve the quality of the read/write function [paragraphs 17-18].

3. The aforementioned claim 2, recites the following elements, inter alia, disclosed in Choi:

The plurality of information layers comprise a first information layer [fig. 3, layer 310] that is formed on the first substrate [fig. 3, layer 312] and transmits part of the light beams [lambda 2] and a second information layer [fig.3 , layer 320] that is formed on the second substrate [fig. 3, layer 322], and

the first information layer and second information layer are bonded together with the transparent separating layer so that the sector addresses of the two information layers have certain relationship [col. 7, line 14 to col. 8, line 52].

4. As to claim 4, it rejected for the similar reasons as claim 1, supra.

5. As to claim 6, it rejected for the similar reasons as claim 4, supra.

6. As to claim 12, it rejected for the similar reasons as claim 1, supra.

7. The aforementioned claim 24, recites the following elements, inter alia, disclosed in Tanaka:

the position of the sector addresses of the respective information layers coincide in a radial direction [fig. 1, & paragraphs 5-17].

8. Applicant's arguments filed on 12/14/06 have been fully considered but they are not deemed to be persuasive for the following reasons.

In the REMARKS, the Applicant argues as follows:

A) That: "Claim 1 is directed to an optical ...

Choi does not teach or suggest these features" [page 5, paragraph 3-4; REMARKS].

FIRST: it seems the Applicants are making a blanket statement to as what Choi does not teach.

SECOND: What is taught by Choi is clearly indicated in rejection of claim 1 above.

B)That; "nowhere does Choi teach or suggest that each sector address data area of the sector structure are divided in a circumferential direction or that the positions of the sector addresses of the respective information layers coincide in both the circumferential and radial direction" [page 5, paragraph 4; REMARKS].

FIRST: Choi was NOT used for this limitation at all. Tanaka was.

SECOND: Tanaka clearly discloses this limitation.

C) That: "the combination of Choi and Tanaka does not overcome these deficiencies. ...

Each layer is formed with a different sector size (i.e., the length of data area) (see Figure 1 and paragraphs [0008]-[0009]). Thus, even if the first sectors positions coincides, as shown in Figure 1, the next sector positions (represented by SM) cannot coincide because of the varying lengths of the data areas in each layers." [page 5, paragraph 45; REMARKS].

FIRST: The Examiners agrees with the Applicants that the data area in Tanaka is of variable length.

SECOND: However it is **the concept** of the addresses and beginning of data coincident that id being used form Tanaka and NOT the figure 1 as it is.

THIRD: More importantly, as pointed out before Satoh et al. US 5,428,597 does clearly indicate that addresses AND data area BOTH can be coincident through out the disc [see figure 3; col. 3, line 41 to 64].

D) That: "nowhere does Satoh disclose that the (see column 5, lines 19-21 and figure 8) the position of sector addresses of the respective information layers coincide in a circumferential direction, as required by claims ....." [page 5, paragraph 45; REMARKS].

FIRST: As pointed out above Satoh does indeed show these features.

SECOND: It seems the Applicants are confusing Satoh's subsequent embodiments [fig. 8] with his first embodiment. Satoh in his figure 3 does indeed show coincident of addresses and data. Satoh also shows that addresses can be at different locations in different layers in fig. 8.

THIRD: For our purpose and argument the Applicants should look at the figure 3 and NOT figure 8.

9. **THIS ACTION IS MADE FINAL**. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contact information

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is 571-272-7625. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2600) where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Dwayne Bost, who can be reached on (571) 272-7023.

Any inquiry of a general nature or relating to the status of this application should be directed to the Electronic Business Center whose telephone number is 866-217-9197 or the USPTO contact Center telephone number is (800) PTO-9199.

GAUTAM R. PATEL
PRIMARY EXAMINER

Gautam R. Patel
Primary Examiner
Group Art Unit 2627

February 9, 2007